

HAMILTON-H900

Technical specifications for software v1.10x

Operating modes

Manual and auto mode For invasive and noninvasive ventilation, and high flow oxygen therapy (HiFlow).

Control settings

| Parameter | Mode | Range | Default | Resolution |
|---|-------------|--------------|----------------------------|------------|
| Chamber exit temperature | Invasive | 35°C to 41°C | 37°C | 0.5°C |
| | Noninvasive | 30°C to 35°C | 31°C | 0.5°C |
| | HiFlow | 33°C to 37°C | 35°C | 1°C |
| Temperature gradient | Invasive | -2°C to 3°C | Adult/Ped: 2°C Neo: 3°C | 0.5°C |
| | Noninvasive | -2°C to 3°C | Adult/Ped: 2°C Neo: 3°C | 0.5°C |
| | HiFlow | -- | 2°C | -- |
| Resulting airway temperature (Y-piece) ¹ | Invasive | 33°C to 42°C | -- | -- |
| | Noninvasive | 28°C to 38°C | -- | -- |
| | HiFlow | 35°C to 39°C | -- | -- |

Monitoring

| Parameter | Temperature | Accuracy |
|--------------------------|-----------------------------|---------------|
| Chamber exit temperature | 10°C to 60°C / 30°C to 41°C | ±1°C / ±0.5°C |
| Y-piece temperature | 28°C to 43°C | ±0.5°C |

¹ Airway temperature is limited by the humidifier software to 42°C



Alarms

| | |
|-----------------|---|
| High priority | Temperature too high, water level too high, humidifier dangerously inclined |
| Medium priority | No humidifier chamber inserted or defective chamber, no limb or defective limb connected, a limb is not properly connected, low temperature, low water level |
| Additional | Visual alarm light, on-screen alarms |
| Audio pause | 120 s |
| Alarm loudness | For medium- and high-priority alarms at 1 m distance from humidifier: A setting of 1 = 50 db(A), 5 = 60 db(A), and 8 = 65 db(A), with an accuracy of ± 6 db(A). |

Performance

| Description | Specifications | | |
|--------------|--|-------------------------------------|---|
| Flow rates | Invasive | Up to 60 l/min | |
| | Noninvasive | Up to 120 l/min | |
| | HiFlow | Up to 100 l/min | |
| Warm-up time | Less than 30 minutes | | |
| Humidity | At an ambient temperature of 18°C to 26°C: | | |
| | Invasive | Temperature setting of 37°C to 41°C | Minimum humidity 33 mg H ₂ O/l |
| | Noninvasive | Temperature setting of 31°C to 35°C | Minimum humidity 12 mg H ₂ O/l |
| | HiFlow | Flow rate \leq 60 l/min | Minimum humidity 33 mg H ₂ O/l |
| | | Flow rate $>$ 60 l/min | Minimum humidity 12 mg H ₂ O/l |
| Standby | Limited to 30°C on Y-piece | | |

Electrical characteristics

| | |
|-------------------------|--|
| Input voltage | 220 – 240 V / 110 – 127 V / 100 V |
| Frequency | 50 / 60 Hz |
| Maximum power | 283 VA (230 V version) / 293 VA (115 V version) / 268 VA (100 V version) |
| Potential equalization | Terminal for the connection of a potential equalization conductor according to DIN 42801 |
| Connectors ² | Interface RS-232 connection only with a Hamilton Medical ventilator |

² Not available in all markets

Standards and approvals

| | |
|----------------|---|
| Classification | Class I (in accordance to IEC 60601-1), Class IIb (in accordance with MDD/MDR) |
| Certification | IEC 60601-1:2012, IEC 60601-2007, ISO 8185:2007, ISO 5356-1:2015, ISO 80601-2-74:2017 |
| Applied parts | Heated breathing circuit tubes (Type BF) |

Environments

| | |
|-------------------------|--|
| Temperature | 10°C to 40°C (operation), -20°C to 60°C (storage) Recommended ambient temperature: 18°C to 26°C |
| Relative humidity | 30 to 95% noncondensing (operating) / 10 to 95% noncondensing (storage) |
| Altitude | Up to 4,000 m (13,123 ft) / 61 kPa to 106 kPa atmospheric pressure |
| Gas input temperature | 18°C to 31°C (recommended) |
| Ingress Protection (IP) | IP 21 |

Physical dimensions

| | |
|--------------------|---|
| Dimensions (WxDxH) | 18 cm (7.1 in) × 16 cm (6.3 in) × 19 cm (7.5 in) |
| Weight | 2.5 kg (5.5 lb) |
| Display | 3 in / 64 × 128 pixels, inverted dot matrix display (backlit) |



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